

**AMENDMENTS TO THE DRAWINGS**

The three (3) attached replacement sheets of drawings include changes to Figs. 1-3. The changes to each of these Figures is as follows:

Sheet 1 includes Fig. 1. A prior art legend designation has been added to this figure.

Sheet 2 includes Fig. 2. A prior art legend designation has been added to this figure.

Sheet 3 includes Fig. 3. A prior art legend designation has been added to this figure.

### REMARKS

This is in full and timely response to the non-final Office Action dated September 30, 2005. The present Amendment amends the specification and claims 6, 13, and 17 and cancels claim 7 in order to further clarify a portion of the scope sought to be patented, and otherwise disputes certain findings of fact made in connection with the rejection of the claims. Support for these amendments can be found variously throughout the specification, including, for example, page 8, lines 15-16, page 6, lines 16-18, Examples 21 and 22, and original claims 1, 13, 14, and 16. No new matter has been added. Accordingly, claims 1-6 and 8-21 are presently pending in the application, of which claims 1-5, 8, 11, 12, and 15 are withdrawn from consideration. Each of the pending claims is believed to be in condition for allowance. Reexamination and reconsideration in light of the present Amendment and the following remarks are respectfully requested.

#### Drawings:

According to the examiner's suggestions, Replacement Sheets for Figures 1-3 have also been attached to this Amendment in order to designate Figures 1-3 as "Prior Art". None of these changes are believed to constitute new matter. Accordingly, entry of these corrected drawings and withdrawal of the objection to the drawings is courteously solicited.

#### Specification

The specification has been reviewed in light of the Examiner's comments, and has been amended in order to correct minor matters of form and syntax, and to clarify portions of the specification as filed. The changes are included in this amendment along with markings showing the changes made. In particular, the specification from page 46, line 14 to page 47, line 16 has been amended to indicate that the components of Curing Agents No. 1 and 2 were measured in grams (g), and additionally to indicate that the Curing Agent No. 1 used in Emulsion No. 1 was measured in parts by weight ("parts"). Additionally, the chemical formula found on page 13 line 14 has been amended to more clearly show the particulars of the formula. Tables 1-3 have also been amended to present them in better form and to clarify portions of the Tables based on the disclosure in the specification. Support for the above amendments can be found variously

throughout the specification, including, for example, page 39, lines 10-14, page 33, line 20 through page 34, line 5, and page 38 line 22 through page 39, line 1.

Claim Rejections- 35 U.S.C. § 112

In the Action, claims 6-7, 9-10, 13-14, and 16-21 were rejected under 35 U.S.C. § 112, first paragraph, for allegedly failing to comply with the written description requirement. Additionally, claims 6-7, 9-10, 13-14, and 16-21 were rejected under 35 U.S.C. § 112, second paragraph, for alleged indefiniteness. The rejection was based on subject matter contained in Tables 1-3, on page 47, lines 10-11, as well as in the incorporation by reference on page 56, and, in the claims themselves. Applicant respectfully traverses these rejections.

*35 U.S.C. § 112, First Paragraph*

Table 1 has been amended to include an explanation of Ep, which is an abbreviation for epoxy resin. The percentages (%) have been labeled as % by wt. in order to indicate that the percent is measured by weight. The numbers in Table 1 have been indicated in a legend below the Table as referring to parts by weight (not in parentheses) and parts by weight in terms of resin content (numbers in parentheses). Further, the legend below Table 1 defines MDI (diphenylmethane-2,4' and/or -4,4'-diisocyanate), MDI-PG (diphenylmethane-2,4' and/or -4,4'-diisocyanate blocked by propylene glycol), and IPDI-Ox (isophorone diisocyanate blocked by an oxime compound).

In Table 2, the percentages (%) have been labeled as % by wt. in order to indicate that the percent is measured by weight. The numbers, both in parentheses and above, have been indicated in a legend below the Table as referring to parts by weight (not in parentheses) and parts by weight in terms of resin content (numbers in parentheses).

Table 3 has been amended to indicate in a legend below the Table that the units of the numbers in the Table are parts by weight. Further, the Table has been divided into Table 3-1 and Table 3-2 in order to present the Table in a clear manner.

Page 47, lines 11-12 has been amended to indicate that the Curing Agent No. 1 used in Emulsion No. 1 was measured grams.

Claim 13, as amended, indicates that the claimed film is a "film coated on a metal substrate," thus clarifying that the film is formed on metal in accordance with the specification.

Amended Claim 6 also incorporates subject matter of original claim 14, base resin (A). The Examiner has indicated that the specification is enabling for a film or coated article based on the base resins as given in claim 14. Withdrawal of this rejection is therefore courteously solicited

*35 U.S.C. § 112, Second Paragraph*

Claim 13, as amended, indicates that the claimed film is a "film coated on a metal substrate," thus clarifying that the film is formed on substrate, in accordance with the specification.

Claim 13 states that the epoxy resin is a "modified amino-containing epoxy resin," indicating that the epoxy resin, as opposed to the amino, is the modified material. An amino compound is added to the epoxy, and therefore it is an "amino-containing" resin.

In Claim 17, both instances of "block" have been amended to read "block," in accordance with the Examiner's suggestion. Withdrawal of this rejection is therefore courteously solicited.

Claim Rejection- Double Patenting

Claim 7 was rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 25 of U.S. Patent No. 6,734,260. This rejection is respectfully traversed. However, in order to expedite prosecution, claim 7 has been canceled. Accordingly, withdrawal of this rejection is courteously solicited.

Claim Rejections- 35 U.S.C. § 102

In the Action, claims 6 and 13 were rejected under 35 U.S.C. § 102(a) and 35 U.S.C. § 102(b) as allegedly being anticipated by Hirata et al. (Japanese Publication No. 2000-007960 ). This rejection is respectfully traversed.

Claim 13, as amended, recites, *inter alia*, a base resin having an **oxygen permeability of from  $1 \times 10^{-12}$  (cc·cm/cm<sup>2</sup>·sec·cmHg) to  $9 \times 10^{-12}$  (cc·cm/cm<sup>2</sup>·sec·cmHg)**. While Hirata et al. arguably discloses an amino-epoxy resin having many of the components of claim 13, Hirata does not disclose, teach, or even suggest an oxygen permeability of from  $1 \times 10^{-12}$  (cc·cm/cm<sup>2</sup>·sec·cmHg) to  $9 \times 10^{-12}$  (cc·cm/cm<sup>2</sup>·sec·cmHg).

The Examiner concedes in the Office Action that Hirata et al. fails to disclose the claimed range of oxygen permeability. The range of oxygen permeability can not be shown to be inherent from the disclosure of Hirata et al. by the mere fact that the same or similar materials are used. To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999); *accord*. MPEP 2112. "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). In the above case, Hirata only discloses that the material is to have a specified shrinkage stress and impedance, characteristics that are clearly distinct from oxygen permeability. Therefore, a rejection based on inherency is improper as applied to claims 13 and 6.

Accordingly, because Hirata et al. fails to disclose, teach or suggest each and every limitation of claim 13, a *prima facie* anticipation rejection has not been established, and withdrawal of this rejection is respectfully requested. *See, e.g., Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) ("A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference"). *See also Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1566 (Fed. Cir. 1989). ("The identical invention must be shown in as complete detail as is contained in the ... claim.").

#### Claim Rejections- 35 U.S.C. § 103

In the Action, claims 6-7, 9-10, 13-14, 16-18, and 20 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Akihiko et al. (Japanese Publication No. 2003-306796). Additionally, claims 19 and 21 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Akihiko et al. in view of Nishiguchi et al. '027 (U.S. Patent No. 6,492,027). Additionally, claims 19 and 12 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Akihiko et al. in view of Nishiguchi et al. '013 (European Publication No. 1111013). Additionally, claims 6-7, 9-10, 13-14, and 16-21 were rejected under 35 U.S.C. §

103(a) as allegedly being unpatentable over Nishiguchi et al. '768 (European Publication No. 1314768). Further, claims 6-7, 9-10, 13-14, and 16-21 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nishiguchi et al. '260 (U.S. Patent No. 6,734,260). These rejections are respectfully traversed.

Claim 13, as amended, recites, *inter alia*, a film formed on a metal substrate, the film containing bismuth hydroxide, and having a glass transition point of from 60 to 96°C and an oxygen permeability of from  $1 \times 10^{-12}$  (cc·cm/cm<sup>2</sup>·sec·cmHg), to  $9 \times 10^{-12}$  (cc·cm/cm<sup>2</sup>·sec·cmHg), at a film thickness of 20  $\mu$ m which is baked at 170°C for 20 minutes.

While Akihiko et al. arguably discloses a very general description of an electrodeposition coating film which may contain formaldehyde, xylene, and amino reacted epoxy resins used in conjunction with a blocked polyisocyanate, Akihiko et al. does not disclose, teach, or even suggest an electrodeposition coating film containing bismuth hydroxide, and having a specified glass transition point, a specified oxygen permeability, a specified film thickness or specified conditions for baking the coating. In fact, Akihiko does not even suggest the desirability of achieving the above characteristics, but rather focuses on the electric charge required for starting the electrodeposition process, and the polarity resistance per unit film thickness.

The present specification demonstrates in Examples 1 and 2 that the above conditions produce the desirable and unexpected results of superior salt spray corrosion resistance, superior resistance against corrosion during salt water immersion, and superior resistance to corrosion due to exposure (see Table 1). Optimization of the characteristics of the electrodeposition film listed in claim 13 provides the superior results realized in the Examples.

While Akihiko et al. arguably discloses a very general description of an electrodeposition coating film which may contain formaldehyde, xylene, and amino reacted epoxy resins used in conjunction with a blocked polyisocyanate, Akihiko et al. does not disclose, teach, or even suggest an electrodeposition coating film containing bismuth hydroxide, and having a specified glass transition point, a specified oxygen permeability, a specified film thickness or specified conditions for baking the coating. In fact, Akihiko does not even suggest the desirability of achieving the above characteristics, but rather focuses on the electric charge required for starting the electrodeposition process, and the polarity resistance per unit film thickness.

While Nishiguchi et al. '768 (EP No. 1314768) and Nishiguchi et al. '260 (U.S. Patent No. 6,734,260) disclose a base resin which may contain many of the same components as

disclosed in claim 13, they does not disclose, teach, or even suggest an electrodeposition coating film having a specified glass transition point or a specified oxygen permeability. Nishiguchi et al. '013 indicates only that the coating film has corrosion resistance for up to 840 hours (36 days). There is no indication that the coating is capable of resisting corrosion for a period of a year, as is the case with the coating of claim 13. Additionally, there is no indication that the coating disclosed in the above art would have a superior salt water immersion corrosion resistance.

Accordingly, because Akihiko et al., Nishiguchi et al. '768, and Nishiguchi et al. '260 fail to disclose, teach or suggest each and every limitation of claim 13, a *prima facie* case of obviousness has not been established, and withdrawal of this rejection is respectfully requested. *See, e.g., In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); *accord*. MPEP 2143.03.

#### Dependent Claims

Moreover, aside from the novel limitations recited therein, claims 6, 9-10, 14, and 16-21, being dependent either directly or indirectly upon allowable base claim 13, are also allowable for at least the reasons set forth above. Withdrawal of the rejection of these claims is therefore courteously solicited.

**CONCLUSION**

For at least the foregoing reasons, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the examiner is respectfully requested to pass this application to issue. If the examiner has any comments or suggestions that could place this application in even better form, the examiner is invited to telephone the undersigned attorney at the below-listed number.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. KPC-0309 from which the undersigned is authorized to draw.

Dated: *February 27, 2006*

Respectfully submitted,

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FIG. 1 (Prior Art)

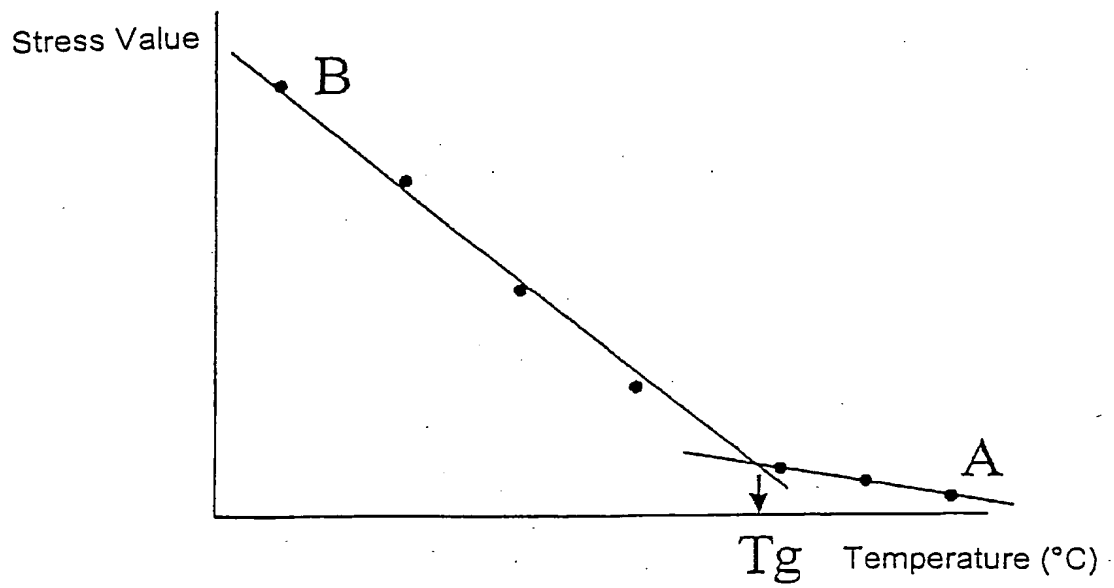




FIG. 3  
(Prior Art)

